



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,371	11/19/2003	Kensuke Osamura	023971-0342	3790

22428 7590 01/03/2006

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

ALI, HYDER

ART UNIT	PAPER NUMBER
----------	--------------

3747

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,371

Applicant(s)

OSAMURA ET AL.

Examiner

HYDER ALI

Art Unit

3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,9,10,13,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-8,11,12,14-18,21 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/19/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,9,10,13,19,20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kolmanovsky et al (US 6,553,949).

As to Claim 1, Kolmanovsky et al discloses an intake air control system for an engine employing a variable intake air quantity mechanism 137 that variably controls a quantity of fresh air entering the engine and a variable compression ratio mechanism 170 that variably controls a compression ratio of the engine, comprising: sensors 160,164,150 that detect engine operating conditions and the compression ratio, and a control unit configured to be electronically connected to the sensors, the variable intake air quantity mechanism, and the variable compression ratio mechanism for controlling the variable intake air quantity mechanism based on the compression ratio as well as the engine operating conditions.

As to Claim 9, Kolmanovsky et al discloses the variable intake air quantity mechanism comprises an electronically controlled throttle mechanism 137, which is

disposed in an induction system of the engine and whose throttle opening is changeable for controlling the quantity of fresh air entering the engine.

As to Claim 10, Kolmanovsky et al discloses the variable intake air quantity mechanism comprises a variable intake valve characteristic control mechanism 120 whose valve characteristic is changeable for controlling the quantity of fresh air entering the engine.

As to Claim 13, Kolmanovsky et al discloses an intake control system for an engine enabling an intake air quantity and a compression ratio to be variably controlled, comprising: sensors 160,164,150 that detect engine operating conditions and the compression ratio; a control unit configured to be electronically connected to the sensors for feedback controlling the intake air quantity based on the compression ratio as well as the engine operating conditions, while feedback controlling the compression ratio based on the engine operating conditions; and the control unit executing phase matching between an intake air quantity change occurring based on intake air quantity control 137 and a compression ratio change occurring based on compression ratio control 170, considering a relatively slower response in the compression ratio change than a response in the intake air quantity change.

As to Claim 19, Kolmanovsky et al discloses an intake air control system for an engine employing a variable intake air quantity mechanism 137 that variably controls a quantity of fresh air entering the engine and a variable compression ratio mechanism 170 that variably controls a compression ratio of the engine, comprising: sensor means 160,150,130 for detecting engine operating conditions and the compression ratio; and

Art Unit: 3747

control means configured to be electronically connected to the sensor means, the variable intake air quantity mechanism, and the variable compression ratio mechanism for controlling the variable intake air quantity mechanism based on the compression ratio as well as the engine operating conditions.

As to Claim 20, Kolmanovsky et al discloses a method of variably controlling an intake air quantity of fresh air entering an engine and a compression ratio of the engine, the method comprising: detecting engine operating conditions and the compression ratio; feedback controlling the intake air quantity based on the compression ratio as well as the engine operating conditions, while feedback controlling the compression ratio based on the engine operating conditions; and executing phase matching between an intake air quantity change occurring based on intake air quantity control 137 and a compression ratio change occurring based on compression ratio control 170, considering a relatively slower response in the compression ratio change than a response in the intake air quantity change.

Allowable Subject Matter

Claims 2-8,11,12,14-18,21,22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (571) 272-4836. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HENRY YUEN can be reached on (571) 272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Hyder Ali".

ha